

Tennessee Pollution Prevention Partnership Success Story



DENSO Manufacturing Athens Tennessee, Inc.
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Associates' IDEA for Energy Conservation

The Member

DENSO, a leading global supplier of advanced automotive technology, systems and components to all the world's automakers, employs 106,000 associates in 32 countries. DENSO Manufacturing Athens Tennessee, Inc. (DMAT) employs approximately 900 associates. Automotive components and systems produced at DMAT include the following: oxygen sensors, fuel injectors, fuel rails, air-flow meters, ignition coils, monolithic carriers and spark plugs.

The Story

There are seven cooling towers at DMAT that are used to support the HVAC chiller units. The cooling towers are operated and maintained by the Facilities Maintenance Department. Although all chillers are not needed during winter months, in the past, all seven supporting towers were operated year round in order to maintain the proper water and chemical balance in the towers to prevent scaling and biological growth.

DENSO encourages associate involvement in continuous improvement activities. The DMAT IDEA program rewards critical thinking and improvement in DENSO's work environment. Two Facilities Maintenance Associates evaluated the operating and maintenance requirements for the cooling towers.

New Idea

The Associates determined that only two towers were required to support the HVAC chiller units during the winter months. Three of the towers could be completely drained and turned off for the winter months. Two towers could be placed in stand-by mode. The towers in stand-by mode would only be operated for 1.5 hours per day instead of running continuously. The stand-by towers would be ready to be placed into service at any time there was a problem with one of the primary towers.

The Success

The Associates IDEA was approved and successfully implemented in the winter of 2005. Facilities Maintenance was able to ensure that the appropriate level of service was maintained for the chiller units while conserving resources by reducing the number of towers operating during the winter. They effectively utilized risk management techniques through the standby towers.

Pollution Prevented

The project saves over 3 million gallons of water, approximately 1.6 million kilowatt hours of electricity and prevents the generation of over 300 tons of carbon dioxide emissions annually. The project saves approximately \$70,000 in utility costs and \$10,000 in chemical costs annually. As a part of the IDEA program, the Facilities Maintenance Associates were awarded a portion of the savings.

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TENNESSEE POLLUTION PREVENTION PARTNERSHIP

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